Harmonic and Unharmonic Crossings.

(Racetypes and Racecrossings in Northern Norway.)

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When the Lapps are crossed with the Nordic (or alpine blood) we are confronted with a long series of the most difficult problems: Does the one race dominate over the other? Does the one race impose on the other its somatic, mental and moral qualities? Will weaknesses be strengthened by mixture with the other race? Will qualities be blended or appear again as separate units? Are these qualities really units or rather a scale of qualities with a maximum and minimum limit. Shall we on the other hand in this mixture of qualities have contrasted characters? Characters which in their original combinations (the purer race) appeared as harmonic and now in the hybrid as disharmonic characters?

In the Laplander (Same, Sabme) we find: low stature; round skull; broad face, high cheek-bones; broad flat nose; yellow-grey skin; uneven small beard; dark (oblique) eyes; black straight hair; Mongoloid features.

In the Nordic race we find: high stature; long skull; cuneiform face; narrow high nose; light complexion; strong beard; blue, or light brown eyes; blonde or light brown hair;* Nordic features.

Examination of eye color among the Lapps in Finmarken showed:

Black-brown	4
Dark brown	15
Greenish dark brown	5
Greenish light blue	12
Grey	
Blue (with brown flecks)	17

Of 14 Lapps (in the Roros district, where they have kept themselves less mixed with Norwegians) there were found proportionately fewer blue eyes, namely:

*I feel that I may arouse controversy, when I say that light brown eyes and light brown hair are features common to the Nordic race. But I am inclined to believe that there is a wider gap between light brown eyes and dark brown or black eyes, than there is between blue and light brown eyes. It seems to be generally agreed that the old vikings were of powerful stature† and had long skulls, strong beards and blond or very often red hair. But the eyes? Were they always blue? and, if so, did the blue eyes originate with the race or did they develop from darker ones? In other words was the brown eye the original, and the blue eye slowly developed from it, or is the light brown eye the result of mixture between two distinct races, the one with blue, the other black eye-colour? Investigation in the animal-kingdom points in a certain direction.

[†] The size of the grip of swords found from that time indicates that their han is were not so large or broad as generally supposed.

Color of eyes and hair in Roros district and around Faemundsjoen:

Eyes:	black-brown	27.7%
•	dark brown	27.7%
	greenish light blue	35.7%
Hair:	black mongolian	14.3%
	black	21.4%
	dark brown	35.7%
	blond	7.2%

The highest and lowest figures found for head index and body-height of Lapps in Northern Norway:

Head index male	Lowest. 81,5	Highest. 86
Head index female	80,0	84
Body height male	144,0cm	157,5 cm.
Body height female	136,0 cm.	150,5cm.

When we compare the hybrid or bastard with one of the parent races, we see clearly that the appearance of the hybrid comes nearer to the Nordic than to the Lapp race.

Not only the height and weight but the whole appearance of the

hybrid is more Nordic than Lapp.

It would however, be a superficial view to conclude from this that the one race dominates over the other. If we investigate more closely we find that this is not the case. But to-day it is the mental qualities, rather than the somatic which occupy our attention.

Already the first time I visited the Lapps in Northern Norway, as a boy of 18, I made the acquaintance of a certain type of human beings very little respected in the Lapp encampments. It was the hybrid between Lapp and Norwegian. The main mental feature of this type was an unbalanced mind. I here call it the M.B. type.

The difficulties or dangers in drawing conclusions from human material are, among others, the following:—

(1) The number of descendents or colaterals is mostly not large enough. (The number of individuals in the stock measured does not necessarily need to be very large).

(2) The reports cannot always be relied upon.

(3) Not even the church register carries absolute proof. It is more common than is generally believed that a baptized child has got a different name entered in the register, than that of his father in the biological sense. Many of the observations and conclusions which have been built up on church registers must therefore be considered worthless.

Observations and measurements taken amongst the Lapps in Northern Norway necessitate a distinction being made between harmonious and disharmonious crossing. I found for example four cases of crossings between the Nordic race and Lapps (in Ljusnedalen), in which the half-breeds were superior as regards stature to both of the

progenitors, and as regards mental powers to the Lapps with whom they were living. But I also found nine cases of halfbreeds—Norwegian and Lapp) belonging to what I have called the M.B. type, the main symptom of want of balance being stealing, lying, drinking. In some of the latter cases the Norwegians certainly also had alpine blood.

Ever since I as a boy got acquainted with a bastard, who drove me in the mountains in a reindeer sledge, the M.B. problem has occupied my attention. And many years later I made experiments in my Laboratory at Winderen in order to get an answer to the question: Does crossing between two or more distant races of animals, for instance rabbits, give results that could throw some light on the human problem?

Table. The figures give the weight of the adult animal in grammes.

F., gen.	4645	×	4160		4402,5	_
Blue "Baver" 3875	Fre × "Væd 437	lder'' 'Væd	ench lder'' × ' 150	White 'Smaalen'' 8410	Averag 4122,5 & 4280	

F., gen. 3150 3190 3080 2800 2560 2610 3410 3850 8081,25

There was, as we see, a great decrease in size and weight of body in F., generation, the percentages of mortality rose from 11% in the original progenitors to 38%. These triple-crossed hybrids had 58% female offspring. There was remarkable difficulty in bringing about copulation. In many cases the attempt had to be given up altogether. In six months, for example, there occurred only one single case of fertilization amongst eight females and one male. A most striking external sign of a disharmonic cross can hardly be imagined than is exhibited by certain types with one upright and one pendant ear. Of course rabbits are not necessarily any the worse for having one upright and one lop ear, but this character is very useful as a symptom of disharmony in general. Why should only the ears be affected? We ought to be suspicious in regard to every organ, every chemical reaction in the cells of the whole organism of the hybrid, when we see this most striking disharmony.

In fact, closer investigation shows that changes must have taken place in regard to the harmony in the bony structure (the way or mode of jumping and holding the body indicates such changes) and the extinction of the sexual instinct and the mortality of the young points to a disharmony of a more deep-seated and radical nature. It seems in

fact to have affected the whole organism.

Although we may not invariably draw conclusions from animals to human beings, nevertheless the results of these experiments reveal certain analogies with human crosses which doubtless can be referred back to the same principles, the same natural powers. The most striking resemblance is that the hybrid in both cases is exceptionally large in the F., generation—compare the above table where the weight

of the hybrid exceeds the weight of the heaviest of the parent races with the result that one of the human hybrid is $5\frac{1}{2}$ cm. larger (body-height) than his *Norwegian* father*

When some scientists are inclined to think that many hybrids represent a good human type, we must not forget that they consider the large size of the hybrids as a symptom of health, strength and vigour. I have tried to show that this symptom is treacherous.

In a paper read in Medecinerforeningen, Kristiania, fourteen years ago! I expressed my doubts about the so-called "purifying effect of blood mixture" when foreign "fresh" blood entered a country. And I drew attention to the fact of high mortality from tuberculosis

among the half breeds of Northern Norway.

My opinion is that not only tuberculosis but also many other diseases and many social evils, for instance, the growing criminality (from mentally disturbed race elements), is partly due to unharmonic racecrossing. Not only the crossing of one race with another ought to be avoided, but of course also certain crossings within the same race. Some crossings are in fact constantly removing undesirable characters, and some crossings constantly creating new miseries for mankind. To find out why is the most urgent work for race-biologists. It is a fact that during the last decades the unfortunate mingling of races has increased to an enormous degree as the result of philantheopic measures and of immigration. The migration of nations in former times were, biologically regarded, harmless in comparison with those of the last eight or ten years. Over the German frontier there have come in from the East 600,000 people representing by no means the best racial elements, while the United States have had to accept an immigration almost three times as large during the same period.

It is now fourteen years since I wrote on obligatory biological registration of all citizens ("Race-biology, the hygiene of propagation," Winderen Laboratory, 1908) as a means of preventing undesirable elements (especially strange races) from entering Scandinavia. A biological obligatory registration should make all move-

^{*}Whether tall stature signifies health, vigour and intellectual or moral superiority is another question.

[†] Here the writer referrs to such works as those of Fisher (Hottentots-Boers, harmonious crossing)—Davenport (Mulattoes, disharmonious) Lundborg (Race Crossings in Sweden, disharmonious with one exception: Walloons-Swedes); Sapper (Central Americans, disharmonious); E. v. Eickstedt (Dutchmen-lavenese, lineboys, Europeans, Polynesians, harmonious, Mestinoes-Cape-Malays, Levantines-Eurasians, disharmonious), and parallel observations amongst planthybrids made by Erwin Baur and Nilsson-Ehle; Lundborg found that the industrial centres in Sweden stand comparatively well in regard to tuberculosis if there is no race-mixture or very little.

[‡]It seems as if later investigation has verified my statements. In the little pamphlet of 1908 we read: ''Crossing between widely divergent races seems to lower the level, somatic and mental, but our knowledge is very small. Race biology is a new science. But I hardly doubt that we shall be able one day perhaps by biological-chemical means (blood-analysis) to ascertain what races may safely be crossed and chemical laws will then be fundamental for moral. The woman of the future will feel antipathy towards a man of strange ('unharmonious') blood, just as the woman of the present day feels antipathy towards one who is not of her standard in life.''

ments easier and more advantageous all round, for those populations willing to work while making and restricting the zone of operation for all "saprophytes" unwilling to work.

We have seen to-day that individuals from two good stocks can produce one or more M.B. types if they belong to different races, or, in other words, produce caricatures of human beings. We have also seen that individuals from two good stocks but with comparatively insignicant endowments can rise to a physiological optimum if the stocks are congenial to each other. One crossing gives a fool, another a genius—one mating gives sickness and another health, one a criminal, another a useful citizen. Such combinations can give surprising results, harmonious and disharmonious.

CONCLUSION.

There are many analogies between the results of race-crosses as observed in animals with those of human crosses:—

- (1) In crossing two or three animal races, it has been shown that it is a given character—or character group—that dominates, and not the one stock as a whole. Such single qualities or character units persist in succeeding generations in human race-crossings.
- (2) There are many striking analogies between the results of race-crossings (defects) observed among human beings and the results from racecrossings in animals.
- (3) The "over-growth" in the F., generation, found in animals and human beings (distant races) and which according to the opinions now generally held indicated strength and health, has to be looked upon as abnormal and consequently as a weakness.
- (4) Crossings between widely different races can lower the physical and mental level. Such disharmony that has, as described above, been assumed to occur through a crossing between two races, may become quite distinct in a crossing between three or more races.
- (5) We must not draw conclusions from one racecrossing to another. Each race must be examined in its relation to another race.
- (6) The figures for the incidence of tuberculosis are the lowest for that part of Norway where the Nordic race is comparatively pure (1,1-1,5) and highest in that part of the country (Finnarken) where there is the largest race mixture (3,6-4,0).
- (7) Until we have more definite knowledge in the effects of race-crossings it will certainly be best to avoid crossings between widely different races. The bilingual movement operates naturally in the opposite direction by compelling, for instance, the Lapps to learn Norwegian and Swedish. We are building a wide conduit for a blood mixture between the two races, which we shall deplore and regret when it is too late.
- (8) We cannot and we shall not persecute any race. No individual is so physically, mentally or morally depraved that he does not deserve our care,—so also with races. No individual must be treated with contempt, not even the criminal. But we must

learn now to distinguish between the right to live and the right of other races to mir their blood with ours and—give life.

(9) Our opponents generally say that we should wait before taking general eugenic measures or steps against racecrossings, until we have more knowledge, and I admit that we need more knowledge; we are seeking much more knowledge! But, as our experience up to date points decidedly in one direction, it will be safer to reverse the argument and say: Until we have acquired sufficient knowledge be careful!